



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D5162-041
Job Sheet 179569



Part No: D5162-041

Job Qty: 1 ea

Part Name: Seat Structure Assembly



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/20/18

Job Tracking No:

Due Date: 7/13/18

Created By: Linda Lacelle

Type: SOLD

Description:

Note: DWG D3016 REV (DEO) A1, D5162 REV A, D5189 REV A, D3017 REV C IPP REV:A 14.11.05 NEW ISSUE
DD VERF:JLM IPP REV:B 15-02-06 AS PER DWG REV:A DD VERF:JLMIPP REV:C 16.08.31 ADD D3016
PARTS DD VERF:JLM

Ship Via:

Bill of Materials

004113

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	7/13/18	7/13/18	0.00	0.00	Start Up Large Fab-1		EL
110	Large Fab	1 pcs	7/13/18	7/13/18	24.00	4.63	Large Fab 4		EL DAS
140	QC	1 pcs	7/13/18	7/13/18	0.00	0.00	QC5		38
165	Large Fab	1 pcs	7/13/18	7/13/18	0.00	4.63	Large Fab 4		EL 9-89
170	QC	1 pcs	7/13/18	7/13/18	0.00	0.00	QC9		13-07-16
175	QC	1 pcs	7/13/18	7/13/18	0.00	0.00	QC5		13-07-16
180	HandFinish	1 pcs	7/13/18	7/13/18	0.00	0.47	HandFinish1		SA 13-07-16
190	QC	1 pcs	7/13/18	7/13/18	0.00	0.00	QC7-5		EL
200	Small Fab	1 pcs	7/13/18	7/13/18	0.00	1.00	Small Fab-8		DAS
210	QC	1 pcs	7/13/18	7/13/18	0.00	0.00	QC5		38
220	Powdercoat	1 pcs	7/13/18	7/13/18	0.00	0.29	Powdercoat3		BL 15-07-17
230	QC	1 pcs	7/13/18	7/13/18	0.00	0.00	QC3		JUL 17 2018
240	Small Fab	1 pcs	7/13/18	7/13/18	0.00	1.00	Small Fab-8		EL
250	QC	1 pcs	7/13/18	7/13/18	0.00	0.00	QC5		EL
260	Packaging	1 pcs	7/13/18	7/13/18	0.00	0.00	Packaging3-2		DAS
270	QC21-SA	1 Ea	7/13/18	7/13/18	0.00	0.00	QC21		21 JUL 19 2018



Container No: S091876



Part: D5162-041

Job No: 179569

Serial No/Batch: S091876

Revision:

Inspector:

Exp Date:

Instructions:

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

* Date: 07/16/18

M136370
START: 8:50
OJT: 320°
FINISH: 9:20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coor. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER : ☐					

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2199-31	Strut Details	1 Ea (1 ea)	90-Start up Operation	5020528
D3016-1	Tube	2 Ea (2 ea)	90-Start up Operation	5037209 (2)
D3016-11	Saddle	2 Ea (2 ea)	90-Start up Operation	5037185 (2)
D3016-3	Tube	4 Ea (4 ea)	90-Start up Operation	5037648 (4)
D3016-5	Tube	2 Ea (2 ea)	90-Start up Operation	5037383 (2)
D3016-7	Tube	4 Ea (4 ea)	90-Start up Operation	5057550 (4)
D3016-9	Saddle	2 Ea (2 ea)	90-Start up Operation	5037959 (2)
D5159-041	Seat Back Brace Assembly	1 Ea (1 ea)	90-Start up Operation	50
D5159-043	Seat Back Brace Assembly	1 Ea (1 ea)	90-Start up Operation	5091851
D5159-045	Seat Rib Assembly	1 Ea (1 ea)	90-Start up Operation	5090915
M4130NT0.750W.049	4130 Round Tube .750 X.049W	13.8000 ft (13.8 ea)	90-Start up Operation	5084718
M4130NT0.750W.083	4130 Round Tube .750 X.083W	2.5000 ft (2.5 ea)	90-Start up Operation	5084720
D3016-13	Bracket	2 Ea (2 ea)	90-Start up Operation	5091205
D3016-15	Gusset	2 Ea (2 ea)	90-Start up Operation	5091711
D3016-17	Gusset	2 Ea (2 ea)	90-Start up Operation	5019185
D3017-11	Cap	4 Ea (4 ea)	90-Start up Operation	5019161
D3017-7	Lug	3 Ea (3 ea)	90-Start up Operation	5019245
D3020-1	Fitting	4 Ea (4 ea)	90-Start up Operation	5024496 (2) 5025006 (2)
D3022-1	Seat Pan	1 Ea (1 ea)	90-Start up Operation	5064798
D3023-1	Back Panel	1 Ea (1 ea)	90-Start up Operation	5064783
D4667-041	Armrest Stud Assembly	1 Ea (1 ea)	90-Start up Operation	5065443
D5190-1	Armrest Fitting	1 Ea (1 ea)	90-Start up Operation	5025169
D5190-3	Weld Pin	1 Ea (1 ea)	90-Start up Operation	F154143
MS20600-AD4W2	Rivet	40 - 46 Ea (46 ea)	200-Small Fab	F14137459-3
AN3-12A	Bolt	3 Ea (3 ea)	240-Small Fab	5048376
AN4-14A	Bolt	2 Ea (2 ea)	240-Small Fab	5007888
AN4-4A	Bolt	1 Ea (1 ea)	240-Small Fab	5044215
AN4-6A	Bolt	1 Ea (1 ea)	240-Small Fab	5058982
AN970-4	Washer	1 Ea (1 ea)	240-Small Fab	5016398
D3024-1	Spacer	3 Ea (3 ea)	240-Small Fab	5093108
D3031-1	Loop	2 Ea (2 ea)	240-Small Fab	5012026
MS20600-AD4W4	Rivet	4 Ea (4 ea)	240-Small Fab	5048405
MS20600-AD4W5	Blind Rivet	8 Ea (8 ea)	240-Small Fab	5016897
MS21042L3	Nut	17 Ea (17 ea)	240-Small Fab	5078167
MS21042L4	Nut	8 Ea (8 ea)	240-Small Fab	5089365
MS24693-S272	Screw	4 Ea (4 ea)	240-Small Fab	5040219
MS27039-1-17	Screw (601.1954)	1 Ea (1 ea)	240-Small Fab	F122731-4
MS27039-1-18	Screw	3 Ea (3 ea)	240-Small Fab	F1243216
MS27039-1-19	Screw	4 Ea (4 ea)	240-Small Fab	5065263
MS27039-1-20	Screw	2 Ea (2 ea)	240-Small Fab	5000680
MS27039-4-20	Screw	4 Ea (4 ea)	240-Small Fab	5039025
MS27039-4-21	Screw	2 Ea (2 ea)	240-Small Fab	F1135744
NAS1149D0332J	Washer	30 Ea (30 ea)	240-Small Fab	5035396
NAS1149D0432J	Washer	17 Ea (17 ea)	240-Small Fab	F1137459-15
NAS43DD4-16FC	Spacer	2 Ea (2 ea)	240-Small Fab	5007039

MS20600-AD4W3

5016914

65

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D2199-31	1	6	0
	D3016-1	2	10	0
	D3016-11	2	10	0
	D3016-13	2	10	0
	D3016-15	2	8	0
	D3016-17	2	8	0
	D3016-3	4	20	0
	D3016-5	2	10	0
	D3016-7	4	20	0
	D3016-9	2	10	0
	D3017-11	4	24	0
	D3017-7	3	14	0
	D3020-1	4	20	0
	D3022-1	1	3	0
	D3023-1	1	2	0
	D4667-041	1	10	0
	D5159-041	1	0	0
	D5159-043	1	0	0
	D5159-045	1	0	0
	D5190-1	1	14	0
	D5190-3	1	4	0
	M4130NT0.750W.049	14	43	0
	M4130NT0.750W.083	3	23	0
200-Small Fab	MS20600-AD4W2	46	204	0
240-Small Fab	AN3-12A	3	34	0
	AN4-14A	2	298	0
	AN4-4A	1	46	0
	AN4-6A	1	1,264	0
	AN970-4	1	176	0
	D3024-1	3	3	0
	D3031-1	2	2	0
	MS20600-AD4W4	4	3,836	0
	MS20600-AD4W5	8	156	0
	MS21042L3	17	1,478	0
	MS21042L4	8	2,313	0
	MS24693-S272	4	125	0
	MS27039-1-17	1	72	0
	MS27039-1-18	3	1,268	0
	MS27039-1-19	4	391	0
	MS27039-1-20	2	29	0
	MS27039-4-20	4	94	0
	MS27039-4-21	2	25	0
	NAS1149D0332J	30	1,710	0
	NAS1149D0432J	17	206	0
	NAS43DD4-16FC	2	21	0
Part Specifications				
Specifications could not be found.				

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					